

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021964**Date Inspected:** 28-Feb-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 14

This QA Inspector randomly observed the following work in progress in the Bay 14:

SMAW repair welding of weld joint DP3167-001-038 located on PCMK OBG 14E. Welder was identified as 050969. QC was identified as Bao Qian (QC2). Weld variables recorded by QC2 appeared to comply with WPS-345-SMAW-2G(2F)-FCM-repair-1 as displayed on ZPMC Weld Repair Report B-WR20271 presented to this QA Inspector and verbally identified by QC2. See photo below of preparation to perform SMAW repair with ceramic heat blanket that provided preheat prior to welding.

During random observation of the welding operations in Bay 14, several arc strikes were observed on DP3161 and DP3167 deck plates, I-ribs, and transverse diaphragms at and near panel point 125. See photo below of one of the arc strikes. This QA Inspector clearly marked the visual indications in yellow paint with the notation G+MT, signifying 'grind smooth and magnetic particle test' and informed ZPMC QC Zhan Hai Feng (QCA2) of the arc strikes and marking. QCA2 informed this QA Inspector that the arc strikes would be corrected in a manner compliant with the relevant contract documents.

SMAW welding of weld joint SEG3013K-031 located on PCMK OBG 13AW. Welder was identified as 045196. QC was identified as ZPMC CWI Liu Yang (QC1). Assisting QC1 at this location and appearing to be monitoring

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the welding operation and recording data was ZPMC QC Li Ping (QCA1), who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-P-2213-TC-U4b-FCM-1 as verbally identified by QCA1.

SMAW welding of weld joint SEG3013F-052 located on PCMK OBG 13AW. Welder was identified as 066421. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-P-2213-TC-U4b-FCM-1 as verbally identified by QCA1.

FCAW welding of weld joint SEG3013M-014 located on PCMK OBG 13AW. Welders were identified as 067876, 045143. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-T-2232-ESAB as verbally identified by QCA1.

SMAW welding of weld joint SEG3013M-050 located on PCMK OBG 13AW. Welder was identified as 045213. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-P-2213-TC-U4b-FCM-1 as verbally identified by QCA1.

SMAW welding of weld joint SEG3013AH-178 located on PCMK OBG 13AW. Welder was identified as 047864. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-P-2214-TC-U4b-FCM-1 as verbally identified by QCA1.

SMAW welding of weld joint SEG3013AH-179, 180 located on PCMK OBG 13AW. Welders were identified as 067876, 066038. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-P-2214-TC-U4b-FCM-1 as verbally identified by QCA1.

FCAW welding of weld joint SA3174-001-001, 002 located on PCMK OBG 13AW. Welder was identified as 215676. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-T-2132-ESAB as verbally identified by QCA1.

SMAW repair welding of weld joint DP3172-001-250 located on PCMK OBG 14W. Welder was identified as 066155. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-345-SMAW-2G(2F)-FCM-repair-1 as displayed on ZPMC Weld Repair Report B-WR20289 presented to this QA Inspector and verbally identified by QCA1.

SMAW repair welding of weld joint DP3172-001-036 located on PCMK OBG 14W. Welder was identified as 067588. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-345-SMAW-2G(2F)-FCM-repair-1 as displayed on ZPMC Weld Repair Report B-WR20289 presented to this QA Inspector and verbally identified by QCA1.

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SMAW repair welding of weld joint DP3174-001-020 located on PCMK OBG 14W. Welder was identified as 066398. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-345-SMAW-2G(2F)-FCM-repair-1 as displayed on ZPMC Weld Repair Report B-WR20513 presented to this QA Inspector and verbally identified by QCA1.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet, George
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Quality Assurance Inspector

Reviewed By:	Riley, Ken
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QA Reviewer
